

UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT(S)	Dunn	GROUP ART UNIT:	2814
APPLN. NO.:	10/743,589	EXAMINER:	Hoa B. Trinh
FILED:	Dec. 22, 2003	Confirmation No.	7988
TITLE:	TWO-LAYER PATTERNED RESISTOR		

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AMENDMENT

This amendment is being filed electronically  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action dated February 3, 2006, please amend the above-identified application as follows:

**Amendments to the Claims:**

Please cancel claims 1-6

7. (Currently Amended) A method for fabricating a patterned resistor on a substrate, comprising:

    patterning two conductive end terminations on and directly contacting the surface of the substrate;

    patterning a first layer of resistive material having a first sheet resistance to have a first width and to extend on and directly contacting the surface of the substrate between the two conductive end terminations;

    patterning a second layer of resistive material having a second sheet resistance to have a second width, to extend between the two conductive end terminations, and to at least partially overlay the first layer of resistive material; and

    patterning one of the first and second layers of resistive material to extend onto the two conductive end terminations, wherein one of the first and second sheet resistances is a low sheet resistance and the other of the first and second resistances is a high sheet resistance, and wherein a ratio of the high sheet resistance to the low sheet resistance is at least ten to one, and wherein the one of the patterns of first and second resistive materials that has the high sheet resistance is substantially wider than the other of the patterns of first and second resistive material.

8.(Original) The patterned resistor according to claim 7, wherein the one of the patterns of first and second resistive materials that has the high sheet resistance is at least 50% wider than the other of the patterns of first and second resistive material.

9. (Original) The patterned resistor according to claim 7, wherein the one of the patterns of first and second resistive materials that has the high sheet resistance is at least 50 microns wider than the other of the patterns of first and second resistive material.

10. (Original) The method according to claim 7, further comprising:  
applying the first layer of resistive material by one of screen printing, stenciling, direct writing, and foil lamination; and

applying the second layer of resistive material by one of screen printing, stenciling, direct writing, and foil lamination.

11. (Original) The method according to claim 7, wherein the patterning of the one of the first and second layers of resistive materials to extend onto the two conductive end terminations, comprises patterning the one of the first and second layers of resistive materials that has a low sheet resistance to extend onto the two conductive end terminations.

12. (Original) The method according to claim 7, further comprising fine tuning the patterned resistor using a fine trim kerf that is extended solely into the one of the first and second layers of resistive materials that has a high sheet resistance.

13. (Original) The method according to claim 12, further comprising coarse tuning the patterned resistor using a coarse trim kerf that is extended into the one of the first and second layers of resistive materials that has a low sheet resistance.

14. (Previously Presented) A method for fabricating a patterned resistor on a substrate, comprising:

    patterning two conductive end terminations on the surface of the substrate;

    patterning a first layer of resistive material having a first sheet resistance to have a first width and to extend on the surface of the substrate between the two conductive end terminations;

    patterning a second layer of resistive material having a second sheet resistance to have a second width, to extend between the two conductive end terminations, and to at least partially overlay the first layer of resistive material;

    patterning one of the first and second layers of resistive material to extend onto the two conductive end terminations, wherein one of the first and second sheet resistances is a low sheet resistance and the other of the first and second resistances is a high sheet resistance, and wherein a ratio of the high sheet resistance to the low sheet resistance is at least ten to one, and wherein the one of the patterns of first and second resistive materials that has the high sheet resistance is substantially wider than the other of the patterns of first and second resistive material;

    fine tuning the patterned resistor using a fine trim kerf that is extended solely into the one of the first and second layers of resistive materials that has a high sheet resistance;

    coarse tuning the patterned resistor using a coarse trim kerf that is extended into the one of the first and second layers of resistive materials that has a low sheet resistance;

    determining positions of edges of the patterned first and second layers of resistive materials;

    using the positions of the edges to determine a large offset side of the patterned resistor that has a larger separation between the edges of the patterned first and second layers of resistive materials; and

    starting the fine trim kerf at the large offset side of the patterned resistor.

15. (Original) The method according to claim 14, wherein the coarse trim kerf is cut before the fine trim kerf is cut, and wherein the determining of the larger offset side of the patterned resistor comprises:

    measuring increments of the resistance change of the patterned resistor during the coarse trim kerf cut; and

    determining the larger offset side from locations of substantial changes of the increments.

Appl. No. 10/609,998  
Amdt. Dated  
Reply to Office Action of September 20, 2005

Docket No.  
Customer No.. 22917

Claims 16-18 are cancelled.

### **REMARKS**

Claims 1-6 and 16-18 are cancelled by this amendment. Claim 7 is changed by this amendment. Claims 7-15 remain in the application.

Rejection of claims 7-11 under 35 U.S.C. 102(b) as being anticipated by Dunn et al. (PCT WO 00/56128) (hereinafter Dunn)

Applicants have amended claim 7 to add the phrase “and directly contacting” to the following text of claim 7: “patterning two conductive end terminations on and directly contacting the surface of the substrate; patterning a first layer of resistive material having a first sheet resistance to have a first width and to extend on and directly contacting the surface of the substrate between the two conductive end terminations”. The addition of the phrase is supported by page 3, lines 4-13 and FIG. 3, which describe an embodiment of the invention. Fig. 3 clearly shows the conductive end termination 110 being on and contacting the surface of the substrate 105 and the text at lines 9-11 describes the first resistive layer being applied on the surface of the substrate.

Applicants believe that the 35 U.S.C. 102 (b) rejection of claims 7-11 is overcome by this change. Applicants believe that claims 8-13 are patentable inasmuch as they rely upon claim 7, which applicants believe to be patentable.

Applicant notes that any amendments or claim cancellations made herein and not substantively discussed above are made solely for the purposes of more clearly and particularly describing and claiming the invention, and not for purposes of overcoming art. The Examiner should infer no (i) adoption of a position with respect to patentability, (ii) change in the Applicant's position with respect to any claim or subject matter of the invention, or (iii) acquiescence in any way to any position taken by the Examiner, based on such amendments or cancellations not substantively discussed. Furthermore, any remarks made herein with respect to a given claim or amendment are intended only in the context of that specific claim or amendment, and should not be applied to other claims, amendments, or aspects of Applicant's invention.

Applicant specifically reserves the right to prosecute claims of differing and broader scope than those presented herein, in a continuation application.

The Applicants believe that the subject application, as amended, is in condition for allowance. Such action is earnestly solicited by the Applicants.

In the event that the Examiner deems the present application non-allowable, it is requested that the Examiner telephone the Applicant's attorney or agent at the number indicated below so that the prosecution of the present case may be advanced by the clarification of any continuing rejection.

Please charge any fees that may be due to Deposit Account 502117, Motorola, Inc.

Respectfully submitted,

SEND CORRESPONDENCE TO:

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By: /James Lamb/\_\_\_\_\_  
James A. Lamb  
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<b>TRANSMITTAL FORM</b> <small>(to be used for all correspondence after initial filing)</small>		Application Number	10/609,998	
		Filing Date	June 30, 2003	
		First Named Inventor	Mayoraz	
		Group Art Unit	2677	
		Examiner Name	Leonid Shapiro	
Total Number of Pages in this Submission		Attorney Docket Number		

  

ENCLOSURES			(check all that apply)
<input type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input checked="" type="checkbox"/> Amendment/Reply  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/Declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Documents  <input type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts Under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-Related papers  <input type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation, Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CDs _____	<input type="checkbox"/> After Allowance Communication to a Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC {Appeal Notice, Brief, Reply Brief} <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter with appropriate copies  <input type="checkbox"/> Other Enclosure(s) (please identify below)	
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SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual	James A. Lamb	Registration No.	38,529
Signature			
Date			

  

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**MOTOROLA**

**FAX TRANSMITTAL SHEET**

Motorola, Inc.  
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☐ Number of Pages (including this page)

Date:

To: Leonid Shapiro – 2677

Location: United States Patent and Trademark Office

Fax No.: 571-273-8300 Centralized Facsimile

From: James A. Lamb - 38,529

Subject: 10/609,998– Mayoraz Confirmation No.: 9973

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**MESSAGE:**

Enclosed herewith, please find AMENDMENT for filing in the below-identified application.

**PLEASE GIVE THESE PAPERS TO:**

EXAMINER:  
GROUP ART UNIT:  
SERIAL NO.:  
FILED:  
INVENTOR:

**Leonid Shapiro**  
2677  
10/609,998  
JUNE 30, 2003  
MAYORAZ

<b>PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)</b>			<b>Docket Number:</b>	
In re Application of	Mayoraz			
Application Number	10/609,998	Filed	June 30, 2003	
For	APPLICATION - INDEPENDENT TEXT ENTRY FOR TOUCH SENSITIVE DISPLAY			
Group Art Unit	2677	Examiner	Leonid Shapiro	

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application.

The requested extension and appropriate non-small-entity fee are as follows: (Check time period desired):

<input type="checkbox"/>	One Month (37 CFR 1.17(a)(1))	\$ 120.00
<input type="checkbox"/>	Two Months (37 CFR 1.17(a)(2))	\$ 450.00
<input type="checkbox"/>	Three Months (37 CFR 1.17(a)(3))	\$ 1020.00
<input type="checkbox"/>	Four Months (37 CFR 1.17(a)(4))	\$ 1590.00
<input type="checkbox"/>	Five Months (37 CFR 1.17(a)(5))	\$ 2160.00

☐ Applicant claims small entity status. See 37 CFR 1.27. Therefore, the amount shown above is reduced by one-half, and the resulting fee is \$ \_\_\_\_\_

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☒ The Director is hereby authorized to charge any fees which may be required or credit any overpayment to Deposit Account Number **502117**. The Deposit Account Name is **Motorola, Inc.**

☒ I have enclosed a duplicate copy of this sheet.

I am the:

☐ Applicant/inventor

☐ Assignee of record of the entire interest. See 37 CFR 3.71.  
Statement under 37 CFR 3.73(b) is enclosed (Form PTO/SB/96).

☒ Attorney or agent of record (Registration No.: 38,529 )

☐ Attorney or agent under 37 CFR 1.34(a)  
Registration number if acting under 37 CFR 1.34(a) \_\_\_\_\_

**WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**

Date	Signature
847-576-5054	James A. Lamb
Telephone Number	Type or printed name

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.  
Submit multiple forms if more than one signature is required, see below.

<input checked="" type="checkbox"/> Total of <u>2</u> form(s) are submitted
---

This collection of information is required by 37 CFR 1.136(a). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450.**

"The date stamp hereon is an acknowledgment that on the date stamped,  
the U.S. Patent and Trademark Office received the following:"

AMENDMENT

DOCKET NO.:				GROUP ART UNIT:	2677
APPLICANT(S)	MAYORAZ				
APPLN. NO.:	10/609,998			EXAMINER:	LEONID SHAPIRO
FILED:	JUNE 30, 2003				
TITLE:	APPLICATION - INDEPENDENT TEXT ENTRY FOR TOUCH SENSITIVE DISPLAY				

**All items with an "X" are included in First Class Mail package.**

Pages		
	X	Return Postal Card
	X	Transmittal Form
		Petition to Extend the Time to Respond
	X	Amendment

{n:3:3}

Mailed:

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